Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Parkinson's disease: percentage of visits for patients with a diagnosis of Parkinson's disease where patients (or caregiver[s], as appropriate) were queried about Parkinson's disease medication-related motor complications (e.g., wearing-off, dyskinesia, or off-time).

Source(s)

American Academy of Neurology (AAN). Parkinson's disease physician performance measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2009 Dec 16. 45 p.

Cheng EM, Tonn S, Swain-Eng R, Factor SA, Weiner WJ, Bever CT Jr, American Academy of Neurology Parkinson Disease Measure Development Panel. Quality improvement in neurology: AAN Parkinson disease quality measures: report of the Quality Measurement and Reporting Subcommittee of the American Academy of Neurology. Neurology. 2010 Nov 30;75(22):2021-7. PubMed

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of visits for patients with a diagnosis of Parkinson's disease where patients (or caregiver[s], as appropriate) were queried about Parkinson's disease medication-related motor complications (e.g., wearing off, dyskinesia, or off-time).

Rationale

Dopaminergic therapies are commonly accompanied by motor fluctuations, including off time (periods of return of Parkinson's disease [PD] symptoms when medication effect wears off) and dyskinesia (drug-

induced involuntary movements, including chorea and dystonia) in most patients. It is important to query patients about these problems because medication adjustments and the addition of adjunctive medications can often ameliorate the problem(s). With these adjustments, the patient's quality of life can be improved.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Monoamine oxidase isoenzyme type B (MAO-B) inhibitors may be used to reduce motor fluctuations in people with later PD. (Level A) (NICE GL35, Jun 2006)

Catechol-O-methyltransferase (COMT) inhibitors may be used to reduce motor fluctuations in people with later PD. (Level B) (NICE GL35, Jun 2006)

Modified-release levodopa preparations may be used to reduce motor complications in people with later PD, but should not drugs of first choice. (Level A) (NICE GL35, Jun 2006)

Dopamine agonists may be used to reduce motor fluctuations in people with later PD. (Level A) (NICE GL35, Jun 2006)

Wearing-Off

- Adjust levodopa dosing. In an early phase, when motor fluctuations are just becoming apparent, adjustments in the frequency of levodopa dosing during the day, tending to achieve four to six daily doses, might attenuate the wearing-off. (Good Practice Point) (EFNS PD Part II, Nov 2006)
- Switch from standard levodopa to controlled release (CR) formulation. CR formulations of levodopa can also improve wearing-off. (Level C) (EFNS PD Part II, Nov 2006)
- Add COMT inhibitors or MAO-B inhibitors. No recommendations can be made on which treatment should be chosen first - on average, all reduce OFF time by about 1 to 1.5 h/day. The only published direct comparison (Level A) showed no difference between entacapone and rasagiline. (EFNS PD Part II, Nov 2006)
- Add dopamine agonists. Oral dopamine agonists are efficacious in reducing OFF time in patients experiencing wearing-off. Currently, no dopamine agonist has proven better than another, but switching from one agonist to another can be helpful in some patients. (Level B/C) (EFNS PD Part II, Nov 2006)
- Add amantadine or an anticholinergic. In patients with disabling recurrent OFF symptoms that fail to improve further with the above mentioned strategies, the addition of an anticholinergic (in younger patients), or amantadine, may improve symptoms in some cases. (Good Practice Point) (EFNS PD Part II, Nov 2006)

Peak-Dose Dyskinesia

- Add amantadine - most studies use 200 to 400 mg/day. The benefit may last <8 months. (Level A) (EFNS PD Part II, Nov 2006)
- Reduce individual levodopa dose size, at the risk of increasing OFF time. The latter can be compensated for by increasing the number of daily doses of levodopa or increasing the doses of a dopamine agonist. (Level C) (EFNS PD Part II, Nov 2006)
- Discontinue or reduce dose of MAO-B inhibitors or COMT inhibitors at the risk of worsening wearing-off. (GPP) (EFNS PD Part II, Nov 2006)
- Add atypical antipsychotics, clozapine with doses ranging between 12.5 and 75 mg/day up to 200 mg/day. (Level A) (EFNS PD Part II, Nov 2006)
- Add quetiapine. (Level C) (EFNS PD Part II, Nov 2006)
- Amantadine may be considered to reduce dyskinesia. (Level C) (AAN QSS PD Dyskin, Apr 2006)
- Entacapone and rasagiline should be offered to reduce off time. (Level A) (AAN QSS PD Dyskin, Apr 2006)
- Pergolide, pramipexole, ropinirole, and tolcapone should be considered to reduce off time. (Level B) (AANQSS PD Dyskin, Apr 2006)
- Apomorphine, cabergoline, and selegiline may be considered to reduce off time. (Level C) (AAN QSS PD Dyskin, Apr 2006)
- The available evidence does not establish superiority of one medicine over another in reducing off time. (Level B) (AAN QSS PD Dyskin, Apr 2006)

Evidence for Rationale

American Academy of Neurology (AAN). Parkinson's disease physician performance measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2009 Dec 16. 45 p.

Horstink M, Tolosa E, Bonuccelli U, Deuschl G, Friedman A, Kanovsky P, Larsen JP, Lees A, Oertel W, Poewe W, Rascol O, Sampaio C, European Federation of Neurological Societies, Movement Disorder Society-European Section. Review of the therapeutic management of Parkinson's disease. Report of a joint task force of the EFNS and the MDS-ES. Part II: late (complicated) Parkinson's disease. Eur J Neurol. 2006 Nov;13(11):1186-202. [196 references] PubMed

Horstink M, Tolosa E, Bonuccelli U, Deuschl G, Friedman A, Kanovsky P, Larsen JP, Lees A, Oertel W, Poewe W, Rascol O, Sampaio C, European Federation of Neurological Societies, Movement Disorder Society-European Section. Review of the therapeutic management of Parkinson's disease. Report of a joint task force of the European Federation of Neurological Societies and the Movement Disorder Society-European Section. Part I: early (uncomplicated) Parkinson's disease. Eur J Neurol. 2006 Nov;13(11):1170-85. [190 references] PubMed

National Collaborating Centre for Chronic Conditions. Parkinson's disease. National clinical guideline for diagnosis and management in primary and secondary care. London (UK): Royal College of Physicians; 2006. 237 p. [418 references]

Pahwa R, Factor SA, Lyons KE, Ondo WG, Gronseth G, Bronte-Stewart H, Hallett M, Miyasaki J, Stevens J, Weiner WJ, Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: treatment of Parkinson disease with motor fluctuations and dyskinesia (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology. 2006 Apr 11;66(7):983-95. [59 references] PubMed

Suchowersky O, Reich S, Perlmutter J, Zesiewicz T, Gronseth G, Weiner WJ, Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: diagnosis and prognosis of new onset Parkinson disease (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology. 2006 Apr 11;66(7):968-75. [47 references] PubMed

Primary Health Components

Parkinson's disease; querying of patient/caregiver; medication-related motor complications (wearing-off, dyskinesia, off-time)

Denominator Description

All visits for patients with a diagnosis of Parkinson's disease (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patient visits with patient (or caregiver[s], as appropriate) queried about Parkinson's disease medication-related motor complications (e.g., wearing-off, dyskinesia, or off-time) (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Skilled Nursing Facilities/Nursing Homes

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

Unspecified

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

At least once per year

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
All visits for patients with a diagnosis of Parkinson's disease

Exclusions
Documentation of medical reason for not querying patient (or caregiver[s], as appropriate) about Parkinson's disease medication-related motor complications (e.g., patient is not on a Parkinson's disease medication; patient is unable to respond and no informant is available)

Note: Refer to the original measure documentation for administrative codes.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Patient visits with patient (or caregiver[s], as appropriate) queried about Parkinson's disease medication-related motor complications (e.g., wearing-off, dyskinesia, or off-time)

Note: Refer to the original measure documentation for administrative codes.

Exclusions
Unspecified

Numerator Search Strategy

Encounter

Data Source

Administrative clinical data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Measure #9: querying about Parkinson's disease medication-related motor complications.

Measure Collection Name

Parkinson's Disease Physician Performance Measurement Set

Submitter

American Academy of Neurology - Medical Specialty Society

Developer

American Academy of Neurology - Medical Specialty Society

Funding Source(s)

American Academy of Neurology

Composition of the Group that Developed the Measure

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National Parkinson Foundation: Joyce Oberdorf, MA

Parkinson's Disease Foundation: Jim Beck, PhD

American Academy of Family Physicians: H. James Brownlee Jr., MD

American Academy of Neurology: Lisa Shulman, MD, FAAN; Sotirios A. Parashos, MD, PhD; Helen Bronte-Stewart, MD, FAAN; Janis Miyasaki, MD, FAAN; Marian Evatt, MD

American Association of Neurosurgeons/Congress of Neurological Surgeons: Karl Sillay, MD

American Neurological Association: Blair Ford, MD, FAAN

American Psychological Association: Paul Moberg, PhD, ABPP/CN

American Psychiatric Association: Laura Marsh, MD

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Financial Disclosures/Other Potential Conflicts of Interest

Dr. Cheng serves as a consultant for the National Parkinson Foundation and receives research support from the NIH/NINDS (K23NS058571 [PI]), the VA Parkinson's Disease Research, Education, and Clinical Center, the Department of Veterans Affairs, the California Office of Statewide Planning and Development, the National Multiple Sclerosis Society, and the American Heart Association.

Ms. Tonn is a full-time employee of the American Academy of Neurology (AAN) and served as project director for AAN grants from Pfizer Inc. and the CDC.

Ms. Swain-Eng is a full-time employee of the AAN.

Dr. Factor has served on scientific advisory boards for Lundbeck Inc., Allergan, Inc., and UCB; serves as a section editor for *Current Treatment Options in Neurology*; receives royalties from the publication of *Parkinson's Disease Diagnosis and Clinical Management* (Demos, 2008) and *Drug Induced Movement Disorders* (Blackwell Futura, 2005); has given expert testimony, prepared affidavits, and served as a consultant for Boehringer Ingelheim; and receives research support from Teva Pharmaceutical Industries Ltd., Ipsen, UCB, and Schering-Plough Corp.

Dr. Weiner has served on scientific advisory boards for Santhera Pharmaceuticals and Rexahn Pharmaceuticals, Inc.; serves on the editorial boards of *Parkinsonism and Related Disorders* and *Neurological Reviews*, and as Editor of *Treatment Options in Neurology*; receives royalties from the publication of *Neurology for the Non-Neurologist* (6th edition, Kluwer/Lippincott 2010), *Parkinson's Disease: A Complete Guide for Patients and Family* (Hopkins University Press 2nd edition, 2007), and *Handbook of Clinical Neurology Hyperkinetic Disorders* (Elsevier, 2011); has received honoraria from Santhera Pharmaceuticals and Novartis; has received research support from Novartis, Santhera Pharmaceuticals, Boehringer Ingelheim, and has provided expert testimony and served as a subject matter expert in legal proceedings.

Dr. Bever serves on the editorial board of the *MS Quarterly Report*; is listed as a co-inventor on and receives royalties from Abraxis BioScience, Inc. for a pending patent regarding use of hematogenous stem cells in neuronal replacement therapy and gene delivery; receives royalties from the publication of *Ambulatory Medicine* (Lippincott Williams & Wilkins, 7th edition, 2006); and has received research support from the Department of Veterans Affairs and the National MS Society.

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2009 Dec

Measure Maintenance

This measurement set will be revised periodically with an extensive review every 3 years.

Date of Next Anticipated Revision

2012 Dec

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in April 2016.

Measure Availability

Source available from the American Academy of Neurology (AAN) Web site .

For more information, contact AAN at 201 Chicago Avenue, Minneapolis, MN 55415; Phone: 800-879-1960; Fax: 612-454-2746; Web site: www.aan.com .

NQMC Status

This NQMC summary was completed by ECRI Institute on December 16, 2011. The information was verified by the measure developer on January 30, 2012.

The information was reaffirmed by the measure developer on April 15, 2016.

Copyright Statement

Production

Source(s)

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